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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/039,821 | 01/04/2002 | Daniel P. Sutula JR. | | 9519 |

7590 08/04/2005

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EXAMINER

KASENGE, CHARLES R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2125

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,821

Applicant(s)

SUTULA, DANIEL P.

Examiner

Charles R. Kasenge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 1 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RD

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/31/05 have been fully considered but they are not persuasive. The Office reasserts the rejection of Applicants invention *as claimed* in view of Schmitt et al. U.S. Patent 5,823,778. Schmitt discloses a single 2-dimensional profile representation of an object (col. 5, lines 5-10). Schmitt teaches, "Once processed, contour can be converted to *a two-dimensional* CAD file format...". Schmitt also teaches defining 3-dimensional data to create a 3D model (col. 5, lines 56-66). The Applicant defines an instruction and data acquisition form as something that facilitates collection and recording of all required measurements and geometric profile data. Schmitt discloses a component that performs the same function (col. 4, lines 56-60). The Office recommends inserting "wherein parametric representation refers to the side angle measurements in the case of the recoil fitting pad process, and to the diameters and positions of the gun barrel in the case of the vent rib fitting process" into claims 1 and 18. The word "object" would have to be replaced with "recoil pad and/or vent rib". In light of the *broadest* reasonable interpretation of Applicant's claims, the Office maintains the current rejection.

Claim Objections

2. Claims 1 and 18 objected to because of the following informalities: The claims should be written in paragraph form. The first word of each step should be lower-case, a semi-colon after each step, and an "and" before the last step. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9, 14, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being rejected by Schmitt et al. U.S. Patent 5,823,778. Referring to claims 1 and 18, Schmitt discloses an apparatus and method enabling the precise creation, fitting, and reproduction of objects comprising the steps of:

- 1) Defining a single 2-dimensional profile representation of an object (col. 5, lines 5-10)
- 2) Defining 3-dimensional parametric representations of an object (col. 4, lines 47-66)
- 3) Converting the profile and parametric data into an electronic format suitable for input to computer aided design and manufacturing (CAD/CAM) programs (col. 5, lines 36-61)
- 4) Creating a virtual CAD model from the profile and parametric data (col. 4, lines 54-60)
- 5) Calculating Numerical Control (NC) motion commands from the CAD model using CAM technology (col. 4, lines 50-66)
- 6) Processing an object using Computer Numerical Controlled (CNC) machine (col. 2, lines 1-5)
- 7) Transmitting data throughout the process, enabling these steps to be conducted at any combination of geographic locations (col. 2, lines 38-41).

Referring to claims 2, 3, and 7, Schmitt discloses the method of claim 1, wherein step 1

comprises a tracing technique and a digitizing device to define the 2-dimensional profile (col. 5, lines 5-10). Schmitt discloses the method of claim 1, wherein step 2 is facilitated by means of printed measuring utensils (col. 2, lines 21-28).

Referring to claims 4-6, 8, 9, and 14, Schmitt discloses the method of claim 1, wherein step 1 comprises an optical scanning process and exposure to reactive chemical media, to define the 2-dimensional profiles (col. 5, lines 36-43). Exposure to reactive chemical media is inherent to the scanning process. Schmitt discloses the method of claim 1, wherein step 1 and step 2 comprise a digitizing device to define the 2-dimensional profile and 3-dimensional parameters (col. 5, lines 36-61). Schmitt discloses the method of claim 1, wherein step 1 and step 2 are facilitated by means of integrated instruction and data acquisition form (col. 5, lines 36-61). Schmitt discloses the method of claim 1, wherein step 3 comprises optical scanning technology (col. 5, lines 36-61). Schmitt discloses the method of claim 1 wherein step 6 comprises a CNC controlled Rapid Prototyping machine capable of directly producing a part (col. 2, lines 35-38).

Referring to claims 15 and 17, Schmitt discloses the method of claim 1, wherein step 7 comprises data transmitted electronically (col. 2, lines 38-41). Schmitt discloses the method of claim 1 wherein any combination of steps 1-7 may be combined consolidated and/or automated (col. 2, lines 1-5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt as applied to the claims above, and further in view of Kinzie U.S. Patent 5,997,681. Schmitt discloses using CNC cutting tools (col. 1, lines 56-62) and lasers (col. 2, lines 21-28), but doesn't expressly disclose specific CNC tools. Kinzie discloses the method of claim 1 wherein step 6 comprises a CNC controlled machine with a rotating tool (col. 8, lines 57-64), a cutting jet, a cutting wire, and a cutting laser (col. 10, lines 50-63). The Office interprets data transmission over the Internet to be common and obvious form of electronic data transmission.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the various CNC cutting tools used by Kinzie. One of ordinary skill in the art would have been motivated to do this since the tools are commonly used to fabricate CAD models (col. 10, lines 50-63).

Conclusion

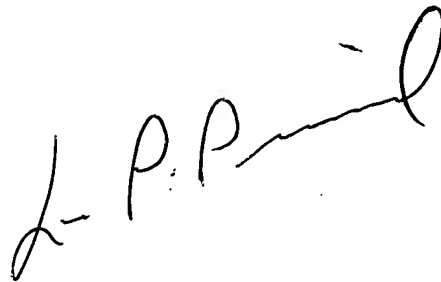
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles R Kasenge whose telephone number is 571 272-3743. The examiner can normally be reached on Monday through Friday, 8:30 - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CK
July 27, 2005

A handwritten signature in black ink, appearing to read 'L. P. Picard', written diagonally across the page.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100